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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/822,960

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Michael P. Keyes

8326

7590

09/08/2004

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EXAMINER

TRAN, ELLEN C

ART UNIT

PAPER NUMBER

2134

DATE MAILED: 09/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/822,960

Applicant(s)

KEYES ET AL.

Examiner

Ellen C Tran

Art Unit

2134

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 March 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.


NORMAN M. WRIGHT
PRIMARY EXAMINER

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. This action is responsive to communication: original application filed 30 March 2001, with acknowledgement of continuing application date of 31 March 2000.
2. Claims 1-28 are currently pending in this application. Claims 1, 11, and 21 are independent claims.

Claim Objections

3. The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

Claim numbers 23-25 were duplicated, therefore this action assumes the second numbering of claims 23-25 are actually 26-28 and they will be referenced to this numbering.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language

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5. **Claims 1-28** are rejected under 35 U.S.C. 102(e) as being anticipated by Zeng et al. U.S. Patent No. 6,505,299 (hereinafter '299).

As to independent claim 1, "A method for encrypting and decrypting digital images comprising the steps of" is taught in '299 col. 3, lines 54-55;

"generating an encrypting transform with a cyclotomic polynomial; partitioning said digital images into data blocks; calculating encrypted data blocks with said encrypting transform and said data blocks" is shown in '299 col. 3, lines 25-36;

"transmitting said encrypted data blocks" is disclosed in '299 col. 3, lines 54-58;

"and calculating decrypted data blocks with the inverse of said encrypting transform and said encrypted data blocks" is taught in '299 col. 5, lines 52-67.

As to dependent claim 2, "wherein said generating step includes the step of determining a mathematical equation representing said encrypting transform, and said mathematical equation is said cyclotomic polynomial" is taught in '299 col. 3, lines 23-36.

As to dependent claim 3, "wherein said generating step includes the step of determining a mathematical equation representing said encrypting transform, and the coefficients of said mathematical equation are calculated with said cyclotomic polynomial" is shown in '299 col. 3, lines 23-36.

As to dependent claim 4, "wherein said generating step includes the step of determining a mathematical equation representing said encrypting transform,

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and said mathematical equation is modulus said cyclotomic polynomial” is taught in ‘299 col. 3, lines 23-36.

As to dependent claims 5-7 “wherein said digital images are color digital images” is shown in ‘299 col. 5, lines 1-15.

As to dependent claims 8-10, “wherein said color digital images comprise a set of images in digital cinema” is disclosed in ‘299 col. 1, lines 5-21.

As to independent claim 11, “A method for encrypting and decrypting digital images comprising the steps of:” is taught in ‘299 col. 3, lines 54-55;

“generating an encrypting transform with a radiometric expression; partitioning said digital images into data blocks; calculating encrypted data blocks with said encrypting transform and said data blocks” is shown in ‘299 col. 3, lines 44-53;

“transmitting said encrypted data blocks” is disclosed in ‘299 col. 3, lines 54-58;

“and calculating decrypted data blocks with the inverse of said encrypting transform and said encrypted data blocks” is taught in ‘299 col. 5, lines 52-67.

As to dependent claim 12, “wherein said generating step includes the step of calculating a base point with said radiometric expression” is shown in ‘299 col. 4, lines 39-49.

As to dependent claims 13 and 16, these claims contain substantially similar subject matter as claim 5 and are rejected along the same rationale.

As to dependent claim 14 and 17, these claims contain substantially similar subject matter as claim 8 and are rejected along the same rationale.

As to dependent claim 15, “wherein said calculating base point step includes the steps of: deriving a bitwise expression for said radiometric expression; and converting said bitwise expression to a high precision integer” is disclosed in ‘299 col. 3, lines 23-36.

As to dependent claim 18, “wherein said radiometric expression is substantially a black metamer” is taught in ‘299 col. 4, line 66 through col. 5, line 26.

As to dependent claim 19, “wherein said radiometric expression is substantially a fundamental metamer” is shown ‘299 col. 4, line 66 through col. 5, line 26.

As to dependent claim 20, “wherein said radiometric expression is substantially a radiometric function” is disclosed in ‘299 col. 4, line 66 through col. 5, line 26.

As to independent claim 21, “A method for encrypting and decrypting digital images comprising the steps of:” is taught in ‘299 col. 3, lines 54-55;

“generating an encrypting transform; partitioning said digital images into data blocks; calculating encrypted data blocks with said encrypting transform, said data blocks and a radiometric expression” is shown in ‘299 col. 3, lines 44-53;

“transmitting said encrypted data blocks” is disclosed in ‘299 col. 3, lines 54-58;

“and calculating decrypted data blocks with the inverse of said encrypting transform and said encrypted data blocks” is taught in ‘299 col. 5, lines 52-67.

As to dependent claim 22, “wherein said calculating encrypted data blocks step includes the step of combining said data blocks with said radiometric expression” is taught in ‘299 col. 4, line 66 through col. 5, line 26.

As to dependent claim 23, “wherein said combining step includes the steps of: deriving a bitwise expression for said radiometric expression; and combining said bitwise expression and said data blocks with an exclusive-or mathematical operation” is shown in ‘299 col. 9, lines 11-38.

As to dependent claims 24 and 25, these claims contain substantially similar subject matter as claims 5 and 8; therefore they are rejected along similar rationale.

As to dependent claims 26-28, these claims contain substantially similar subject matter as claims 18-20; therefore they are rejected along similar rationale.

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Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ellen C Tran whose telephone number is (703) 305-8917. **"After mid-Oct, 2004, the examiner can be reach at (571) 272-3842"**. The examiner can normally be reached on 6:30 am to 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory A Morse can be reached on (703) 308-4789. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


NORMAN M. WRIGHT
PRIMARY EXAMINER

Ellen Tran
Patent Examiner
Technology Center 2134
30 August 2004